

Sunrooms & Patio Covers

Fairfax County
VIRGINIA

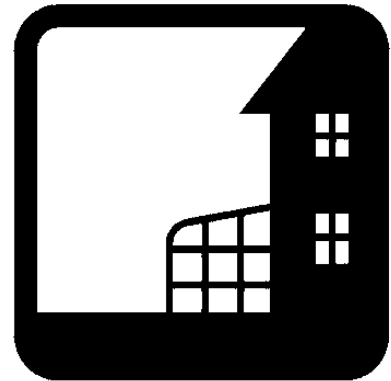
Land Development Services

Department of Public Works and Environmental Services

Hours of Operation: Monday - Thursday: 8 a.m. to 4 p.m.
Friday: 9:15 a.m. to 4 p.m.

Location: **Herrity Building**
12055 Government Center Parkway
Fairfax, VA 22035-5504
Telephone: 703-222-0801
TTY: 711

For forms and publications, visit us on the Web at
www.fairfaxcounty.gov/dpwes



This publication provides guidelines for installing a sunroom or patio cover on new or existing construction. The requirements herein are the most common and are not representative of all the conditions you may encounter when installing a sunroom or patio cover.

in this publication:

PERMITS REQUIRED	1
BEFORE OBTAINING A PERMIT	2
PLAN REQUIREMENTS.....	2
OBTAINING A PERMIT	4
AFTER OBTAINING A PERMIT	5

PERMITS REQUIRED

You must obtain permits for the construction of a sunroom or patio cover. Listed below are the types of permits required, depending on the complexity of the project. Apply for your permits at the **Permit Application Center** located at the Herrity Building, 2nd floor, telephone: **703-222-0801, TTY 711**.

- **Building permit** for architectural and structural elements.
- **Electrical permit** for all electrical installations.
- **Mechanical permit** for installations of heating and air conditioning systems.

HELPFUL HINT: You may obtain permits in your own name; however, if a contractor is to perform the work, it is strongly recommended that the contractor secure the permit and be listed as the responsible party. In this way, the county will be in a better position to assist you in gaining code compliance if the work is defective. A contractor must be properly licensed in order to obtain a permit.

DEFINITIONS

Use the definitions below to learn the difference between a sunroom and a patio cover.

- **Sunroom:** A heated and/or air conditioned one-story addition with livable space and windows and skylights in excess of 40 percent of the gross area of its exterior walls and roof.
- **Patio Cover:** An unconditioned one-story addition separated from the existing house with a closeable door intended for outdoor living only.

BEFORE OBTAINING A PERMIT

COVENANTS AND DEED RESTRICTIONS

Covenants and deed restrictions are regulations set forth by many homeowner or civic associations. While not enforced by Fairfax County, some regulations may restrict construction. For more information, contact your association.

BUILDING CODE

Your project is required to comply with the 2006 Virginia Residential Code which may be purchased from the International Code Council at www.iccsafe.org. Code books are also available in the reference section of the Fairfax County regional libraries.

MINIMUM SUBMISSION REQUIREMENTS

All submissions for a sunroom or patio cover must include the following:

- ☐ Two sets of building plans (see below for requirements).
- ☐ Two copies of the house location plat or grading plan; see page 4 for requirements.
- ☐ Two copies of the structural analysis signed and sealed by a registered design professional licensed in the commonwealth of Virginia, if required; see page 3.
- ☐ Two copies of the Evaluation Report, if applicable, by a listing agency such as the [International Code Council – Evaluation Service](#); see below.

EVALUATION REPORTS

An evaluation report is a set of guidelines issued by an evaluation service to assist the designer, code official and builder in the design, review and installation of products not specifically referenced in the building code. When approved agencies, such as the International Code Council-Evaluation Services, issue a report, the product is considered to be "listed," with the testing and corresponding evaluation reports following a strict format outlined in an Acceptance Criteria or AC.

Pre-manufactured sunroom and patio covers can be listed as a complete unit or by their individual components. When listed as a unit, the evaluation report must follow AC340 – Patio Covers. When listed by components, the evaluation report must follow the acceptance criteria for that particular component type, such as AC04 - Sandwich Panels.

Whether issued as a unit or by component, the design and installation requirements and the conditions of use listed in the report must be strictly followed. You can find the acceptance criteria and evaluation reports on the International Code Council-Evaluation Services website at www.icc-es.org. The evaluation report for the pre-manufactured products you are using to construct your sunroom must be attached to the drawings during the permit application process.

BUILDING PLANS

Building plans must meet the requirements or show the items listed below:

- ☐ Minimum scale of ¼ inch = 1 foot; all dimensions must be shown.
- ☐ Minimum sheet size: 8½ inches x 11 inches, no pencil.
- ☐ Code year used for the design (see above).
- ☐ Name, address and occupation of the building designer.
- ☐ If plans are prepared by a Virginia registered design professional, at least one set of plans must bear the **original** seal, signature and date of the licensed professional. This set will be retained by the county.
- ☐ List of material specifications including, but not limited to: grade and species of lumber, concrete strength and steel strength.
- ☐ List of design load criteria: live load, dead load, snow load, wind load, bearing capacity and lateral earth pressure (for Fairfax County: the maximum assumable soil bearing capacity = 2,000 pounds per square feet, ground snow load = 25 pounds per square feet and wind speed = 90 miles per hour).

- ☐ Height of roof peak from grade elevation.
- ☐ Elevations (front, sides and rear) indicating window and door dimensions and height of wall from grade elevation.
- ☐ Wall bracing including location of all braced wall lines and braced wall panels, method(s), and any other special requirements. Proprietary products require an evaluation report from an approved listing agency. Designed shear walls require the submission of design calculations sign and sealed by a Virginia registered design professional. For more information, see the publication [Wind bracing](#).
- ☐ Foundation plan that must include footing location and dimensions (minimum footing depth is 24 inches).
- ☐ Floor plan with room(s) labeled and dimensions shown.
- ☐ Structural framing plans for each level and roof accurately detailing all members, sizes, span lengths and spacing. (This requirement may be omitted depending on the requirements in the evaluation report if you are using a pre-manufactured product.)
- ☐ Structural details of connections showing type, size and location of all fasteners.
- ☐ The connection of the new materials to the existing house. This shall include the size and location of existing material(s).
- ☐ Existing structural conditions.
- ☐ Evaluation report from an approved listing agency such as the International Code Council Evaluation Service.
- ☐ Calculations from a Virginia registered design professional, if required. See STRUCTURAL ANALYSIS below for more information. These requirements may be omitted if permitted by an evaluation report.
- ☐ The insulation R-values and window and skylight U-factors shall be shown on the plans. Sunrooms that are separated from the house with a closeable door and are heated or air conditioned must meet the requirements of the energy conservation code. See [Energy Conservation](#) publication for more information.

Building Plans for sunrooms placed on a deck must also meet the requirements or show the items listed below:

- ☐ Location of sunroom point loads on deck.
- ☐ Connection of deck to house.
- ☐ Lateral support to resist wind load at deck posts.

STRUCTURAL ANALYSIS

A structural analysis may be required by the evaluation report of your pre-manufactured product and/or if you cannot meet the prescriptive requirements of the Virginia Residential Code for wall bracing. When such an analysis is required, one set of engineering calculations must be submitted with your plan submission during the permit application process. The calculations must meet the requirements below.

- ☐ The calculations shall be affixed with the original signature and seal of a registered design professional licensed in the commonwealth of Virginia.
- ☐ The calculations must be specific for each permit application.
- ☐ Design wind load must be determined in accordance with Section 1609 of the Virginia Construction Code. The basic wind speed for Fairfax County is 90 miles per hour. Most residential construction in Fairfax County qualifies as Exposure B with an Importance Factor (I_w) of 1.00. **Please note: wind load must be applied to both windward and leeward sides simultaneously.**

- ☐ The calculations must consider both the main lateral-force-resisting systems as well as components and cladding.
- ☐ If you are using a computer analysis to determine wind load, moments, shears and rotations, a complete set of the computer analysis must be provided clearly showing all input parameters and output data.
- ☐ When the main lateral-force-resisting-system is composed of wood, the analysis shall comply with Section 2305 of the Virginia Construction Code, "General Design Requirements for Lateral-Force-Resisting Systems," and must include the following.
 - A detailed design of the building diaphragms (Section 2305.2) and shear walls (Section 2305.3).
 - A detail specifying the sheathing thickness, nail sizes and nailing pattern for diaphragms and shear walls.
- ☐ Design values used in the analysis shall comply with Virginia Construction Code referenced standards.
- ☐ Ensure there is an adequate load path to the foundation.
- ☐ Show a detailed analysis of all connections along the lateral load path. The source of fastener capacities must be referenced.
- ☐ Show an analysis of the lateral-force-resisting-system of the existing house with the new applied loads when utilizing the existing house to resist the lateral loads of a sunroom.
- ☐ Ensure post-to-beam connections are capable of resisting shear and rotation.
- ☐ Insulation R-values and U-factors. See [Energy Conservation](#) for more information and specific requirements.

HOUSE LOCATION PLATS

If you do not have a copy of your house location plat, review your loan closing documents or contact your mortgage lending institution to obtain one. You may also contact the Zoning Permit Review Branch on the 2nd floor of the Herrity Building, telephone **703-222-1082, TTY 711**; **please note:** plats are not available for all properties. If you are unable to locate a copy of your plat through these sources, you will be required to hire a certified land surveyor or civil engineer to have one prepared.

House location plats must meet the requirements or show the items listed below:

- ☐ No reduced, enlarged, and faxed copies.
- ☐ The area of the addition drawn to scale.
- ☐ Note the actual square footage or overall dimensions of the sunroom or patio cover.

OBTAINING A PERMIT

PERMIT PROCESS

Bring the construction documents described herein to the Permit Application Center on the 2nd floor of the Herrity Building where your permit process will begin. Here you will complete a building permit application. Permit technicians will direct you to the appropriate agencies necessary for permit approval. The applicable departments for a sunroom or patio cover are:

- **Zoning** ensures setback requirements, as set forth by the Zoning Ordinance, are maintained. The Zoning Permit Review Branch is located at the Herrity Building, 2nd floor, telephone: **703-222-1082, TTY 711**.
- **Site Permits** will review the plat for site-related issues, soils and conformance to the [Chesapeake Bay Preservation Ordinance](#). The Site Permits Section is located at the Herrity Building, 2nd floor, telephone: **703-324-1510, TTY 711**.

- **Health Department**, located at 10777 Main Street, Fairfax, telephone: **703-246-2444, TTY 711**, will review for clearances to existing septic systems and/or wells if they exist on the property.
- **Building Plan Review**, located on the 3rd floor of the Herrity Building, telephone: **703-222-0114, TTY 711**, will review for compliance to the building code.

The building permit is issued when all required approvals have been obtained and applicable fees have been paid. Once your permits are issued, you must post a copy on the job site until the project has received final approval.

TRADE PERMIT PROCESS

Mechanical and electrical permits are issued after the building permit is approved, but may be processed at the same time. In most cases they do not require a plan submission; code compliance will be determined at the time of the inspection. **Please note:** you may be exempt from a mechanical permit if you are only extending ductwork on an existing HVAC system. If a new system is installed, the HVAC contractor must submit a [Residential Heat Loss and Heat Gain Certification Form](#).

FEES

For information on the related fees for a sunroom or patio cover contact the following:

- Permit Application Center for building, electrical, and mechanical permits at **703-222-0801, TTY 711** or visit www.fairfaxcounty.gov/living/buildingpermits.
- Plan and Document Control for site related permit and fees at **703-324-1730, TTY 711**.
- Health Department for fees related to septic systems and wells at **703-246-2444, TTY 711**.
- VDOT at **703-383-2888, TTY 711**.

WALK-THRU PROGRAM

The Residential Walk-Thru Program allows the permit holder of most sunrooms or patio covers to walk their submission package to each approving agency with the permit usually being issued on the same day. Sunrooms or patio covers of more than one story or of a complex design are not eligible for this program.

AFTER OBTAINING A PERMIT

REQUIREMENTS FOR PUBLIC UTILITIES

You must call "[Miss Utility](#)," a free service, at **811, TTY 711**, before excavating to ensure that the construction does not interfere with underground utility lines. If you fail to contact Miss Utility and damage occurs, you will be liable for all costs of repair.

INSPECTION REQUIREMENTS

- A copy of the approved permit, plat, building plans, and [Residential Heat Loss and Heat Gain Certification Form](#) (if applicable) must be on the job site and must be available to the inspector during each inspection.
- You may choose to use a preapproved licensed professional to perform the foundation inspections. Contact the Residential Inspections Division, at **703-631-5101, TTY 711** prior to activation of the building permit. **Please note: this is a requirement for sunrooms and patio covers built on problem soils.**

SCHEDULING AN INSPECTION

It is the responsibility of the permit holder or the permit holder's representative to notify the county when the stages of construction are reached that require an inspection. Ladders, scaffolds and testing equipment required to complete an inspection must be provided. Inspection requests may be made using one of the three methods listed below; please have your permit number available when scheduling an inspection. Requests made prior to 11:59 p.m. on automated systems will be scheduled for the next workday.

- Inspection Request Center: **703-222-0455, TTY 711**, 8 a.m. to 4:30 p.m., Monday – Thursday, and 9:15 a.m. to 4:30 p.m. on Fridays.
- Fairfax Inspections Database Online (FIDO): www.fairfaxcounty.gov/fido or call **703-222-2474**, 24 hours a day, seven days a week. Calling the FIDO system will require inspection codes which can be found at www.fairfaxcounty.gov/dpwes/publications/ivr.htm.

Please review the attached Inspection Timing Checklist below determine the time and number of inspections required.

INSPECTION TYPE	BUILDING	ELECTRICAL	REQUIREMENTS PRIOR TO INSPECTION Notes: 1. Approval must be obtained prior to proceeding with the next applicable element. 2. All inspections are conducted by residential inspectors.
Footing	x		<ul style="list-style-type: none"> • The footing trench/formwork must be prepared and inspected prior to placement of concrete. • The bottom of the footing must bear on solid ground. • If problem soil, inspection must be made by geotechnical engineer.
Slab	x		<ul style="list-style-type: none"> • The area must be prepared for concrete; reinforcing steel must be in place. • The gravel and vapor barrier must be in place. • If drain tile is specified, it must be in place, properly sloped and tied to the proper outfall.
Close-in		x	<ul style="list-style-type: none"> • All electrical wiring must be installed and electrical boxes set.
Framing	x		<ul style="list-style-type: none"> • Concrete or masonry walls and slabs must be inspected and approved. • Sill plates must be installed and secured to the foundation walls. • All subflooring must be installed. • Structure must be weather tight. • Plate attachment to floor framing and house plate attached. Both plates must be exposed for inspection. • Windows and doors must be installed. • Electrical close-in inspections must be approved or completed at the same time as the framing inspection.
Final		x	<ul style="list-style-type: none"> • Electrical wiring must be complete.
	x		<ul style="list-style-type: none"> • Street address must be attached to structure and readable from the street. • The structure must be ready for use and occupancy.

Fairfax County is committed to a policy of nondiscrimination in all county programs, services and activities and will provide this document in alternative formats and in different languages upon request. Please call **703-324-5033, TTY 711** or write Department of Public Works and Environmental Services, Suite 659, 12055 Government Center Parkway, Fairfax, VA 22035-5506. Please allow at least seven working days for preparation of material.



A Fairfax County, Virginia Publication